

APPENDIX B

Some lithium battery information that may be of interest:

Lithium-ion Battery Materials

- Lithium iron phosphate (LFP)
 - More compact and energy dense. Good for equipment like forklifts and power jacks. Has low resistance, longer life cycle, and greater thermal stability.
- Lithium nickel manganese cobalt oxide (NMC)
 - Very energy dense with high-level performance. Good for electric vehicles like e-bikes and cordless power tools.
- Lithium cobalt oxide (LCO)
 - Ideal for mobile phones, laptops
- Lithium manganese oxide (LMO)
 - Inexpensive, non-toxic, used in smoke alarms and security devices
- Lithium nickel cobalt aluminum oxide (NCA)
 - Ideal for electric cars, cordless vacuums
- Lithium titanate (LTO)
 - Ideal for electric cars and charging stations, wind and solar storage, traffic signals

Material handling equipment is typically powered by either lithium iron phosphate or lithium nickel manganese cobalt oxide chemistries.

Lithium-ion batteries are rechargeable. When recharging, the lithium-ions go through the same process, but in the opposite direction. This action restores the battery for additional use.⁵

⁵ <https://www.fluxpower.com/blog/lithium-ion-battery-materials-and-why-their-chemistry-matters>

